

## CLAIMS

What is claimed is:

1. A method for maintaining code routing information for a routing guide and for the switches in a telecommunication network, the method comprising:
  - retrieving code routing information from a routing guide;
  - retrieving code routing information from switches in the telecommunication network corresponding to the code routing information received from the routing guide; and
  - identifying discrepancies between the code routing information received from the routing guide and the code routing information retrieved from switches in the telecommunication network.
2. The method for maintaining code routing information of claim 1, further comprising:
  - correcting routing errors in the routing guide; and
  - correcting routing errors in switches in the telecommunication network.
3. The method for maintaining code routing information of claim 2, wherein the routing guide comprises a routing database containing LERG routing data.
4. The method for maintaining code routing information of claim 2, wherein retrieving code routing information from switches in the telecommunication network corresponding to the code routing information received from the routing guide comprises:

iteratively accessing switches and retrieving routing information from each switch for each area code in the routing guide until all switches in each area code in the routing guide has been accessed.

5. A method for maintaining code routing information for a routing guide and for the switches in a telecommunication network, the method comprising:

retrieving routing information for an NPA code from the routing guide;

connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;

iteratively repeating:

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;

until routing information for all NXX codes for the rate center on the switch for the NPA code has been saved.

6. The method for maintaining code routing information of claim 5, further comprising:

iteratively repeating:

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;

until routing information for all NXX codes for the rate center on the switch for the NPA code has been saved;

until routing information for all rate centers on the switch for the NPA code has been saved.

7. The method for maintaining code routing information of claim 6, further comprising:

iteratively repeating:

connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the  
NXX code for the rate center on the switch for the NPA code;

until routing information for all NXX codes for the rate  
center on the switch for the NPA code has been saved;

until routing information for all rate centers on the switch for the  
NPA code has been saved;

until routing information for all switches for the NPA code has been  
saved.

8. The method for maintaining code routing information of claim 7, further  
comprising:

iteratively repeating:

retrieving routing information for an NPA code from the routing guide;

connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA  
code;

querying the switch for routing information for the NXX code for the rate  
center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for  
the rate center on the switch for the NPA code; and

iteratively repeating:

connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;

until routing information for all NXX codes for the  
rate center on the switch for the NPA code has been saved;

until routing information for all rate centers on the switch  
for the NPA code has been saved;

until routing information for all switches for the NPA code has  
been saved;

until routing information for all switches for the NPA code has been  
saved.

9. The method for maintaining code routing information of claim 7, further  
comprising:

comparing the routing information from the routing guide to the routing  
information saved from the switches; and

identifying discrepancies in the routing information from the routing guide  
and the routing information saved from the switches.

10. The method for maintaining code routing information of claim 9, further  
comprising:

correcting identified discrepancies in the routing guide.

11. The method for maintaining code routing information of claim 9, further  
comprising:

correcting identified discrepancies in the routing of the switches.

12. The method for maintaining code routing information of claim 9, further  
comprising:

determining which identified discrepancies are errors in the routing guide  
and which identified discrepancies are errors in the routing of the switches;

correcting errors in the routing guide; and

correcting errors in the routing of the switches.

13. The method for maintaining code routing information of claim 8, further comprising:

comparing the routing information from the routing guide to the routing  
information saved from the switches; and

identifying discrepancies in the routing information from the routing guide  
and the routing information saved from the switches.

14. The method for maintaining code routing information of claim 13, further comprising:

correcting identified discrepancies in the routing guide.

15. The method for maintaining code routing information of claim 13, further comprising:

correcting identified discrepancies in the routing of the switches.

16. The method for maintaining code routing information of claim 13, further comprising:

determining which identified discrepancies are errors in the routing guide  
and which identified discrepancies are errors in the routing of the switches;

correcting errors in the routing guide; and

correcting errors in the routing of the switches.



17. At least one machine-readable media containing machine-readable code embodied thereon for causing a system to perform a method for maintaining code routing information for a routing guide and for switches in a telecommunication network, the method comprising:

retrieving code routing information from a routing guide;

retrieving code routing information from switches in the telecommunication network corresponding to the code routing information received from the routing guide; and

identifying discrepancies between the code routing information received from the routing guide and the code routing information retrieved from switches in the telecommunication network.

18. The at least one machine-readable media of claim 17, the method further comprising:

correcting routing errors in the routing guide; and

correcting routing errors in switches in the telecommunication network.

19. The at least one machine-readable media of claim 18, wherein the step of the method of retrieving code routing information from switches in the telecommunication network corresponding to the code routing information received from the routing guide comprises:

iteratively accessing switches and retrieving routing information from each switch for each area code in the routing guide until all switches in each area code in the routing guide has been accessed.

20. At least one machine-readable media containing machine-readable code embodied thereon for maintaining code routing information for a routing guide and for switches in a telecommunication network, the method comprising:

- retrieving routing information for an NPA code from the routing guide;
- connecting to a switch for the NPA code;
- accessing a rate center on the switch for the NPA code;
- accessing an NXX code for the rate center on the switch for the NPA code;
- querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;
- saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;
- iteratively repeating:
  - accessing an NXX code for the rate center on the switch for the NPA code;
  - querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and
  - saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;
- until routing information for all NXX codes for the rate center on the switch for the NPA code has been saved.

21. The at least one machine-readable media of claim 20, the method further comprising:

iteratively repeating:  
accessing a rate center on the switch for the NPA code;  
accessing an NXX code for the rate center on the switch for the NPA  
code;  
querying the switch for routing information for the NXX code for the rate  
center on the switch for the NPA code;  
saving routing information responsive to the query for the NXX code for  
the rate center on the switch for the NPA code; and  
iteratively repeating:  
accessing an NXX code for the rate center on the switch for the  
NPA code;  
querying the switch for routing information for the NXX code for  
the rate center on the switch for the NPA code; and  
saving routing information responsive to the query for the NXX  
code for the rate center on the switch for the NPA code;  
until routing information for all NXX codes for the rate center on  
the switch for the NPA code has been saved;  
until routing information for all rate centers on the switch for the NPA  
code has been saved.

22. The at least one machine-readable media of claim 21, the method further  
comprising:

iteratively repeating:  
connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;

until routing information for all NXX codes for the rate center on the switch for the NPA code has been saved;

until routing information for all rate centers on the switch for the NPA code has been saved;

until routing information for all switches for the NPA code has been saved.

23. The at least one machine-readable media of claim 22, the method further comprising:

iteratively repeating:

retrieving routing information for an NPA code from the routing guide;

connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

connecting to a switch for the NPA code;

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

...  
querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing a rate center on the switch for the NPA code;

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code;

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code; and

iteratively repeating:

accessing an NXX code for the rate center on the switch for the NPA code;

querying the switch for routing information for the NXX code for the rate center on the switch for the NPA code; and

saving routing information responsive to the query for the NXX code for the rate center on the switch for the NPA code;

until routing information for all NXX codes for the rate center on the switch for the NPA code has been saved;

until routing information for all rate centers on the switch  
for the NPA code has been saved;

until routing information for all switches for the NPA code has  
been saved;

until routing information for all switches for the NPA code has been  
saved.

24. The at least one machine-readable media of claim 23, the method further  
comprising:

comparing the routing information from the routing guide to the routing  
information saved from the switches; and

identifying discrepancies in the routing information from the routing guide  
and the routing information saved from the switches.

25. The at least one machine-readable media of claim 24, the method further  
comprising:

correcting identified discrepancies in the routing guide.

26. The at least one machine-readable media of claim 24, the method further  
comprising:

correcting identified discrepancies in the routing of the switches.

27. The at least one machine-readable media of claim 24, the method further  
comprising:

determining which identified discrepancies are errors in the routing guide  
and which identified discrepancies are errors in the routing of the switches;

correcting errors in the routing guide; and  
correcting errors in the routing of the switches.